## **ABSTRACT**

A liquid dispenser that uses rotary motion to create a relative movement between one or more dispensing elements and one or more receivers is disclosed. The dispensing elements are fluidically coupled to one or more reservoirs, which contain ingredients that are to be dispensed by the dispensing elements into one or more receivers. The receivers are disposed on a receiver support structure that is located beneath the dispensing elements. In some embodiments, the dispenser operates according to a quasi-continuous dispensing protocol or quasi-simultaneous dispensing protocol, or both quasi-continuous and quasi-simultaneous dispensing protocol.